

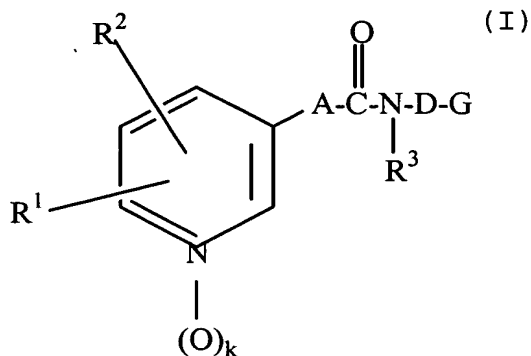
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-54. (canceled)

55. (currently amended) A pyridylalkane, pyridylalkene or pyridylalkine acid amide compound of formula (I)



wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>8</sub>-cycloalkyloxy, benzyloxy, C<sub>1</sub>-C<sub>7</sub>-alkanoyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, aminocarbonyl, C<sub>2</sub>-C<sub>7</sub>-alkylaminocarbonyl, C<sub>3</sub>-C<sub>13</sub>-dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and NR<sup>4</sup>R<sup>5</sup>, wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl;

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl;

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkinylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub> and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

G is selected from the group consisting of G<sup>1</sup>, G<sup>2</sup>, G<sup>3</sup>, G<sup>4</sup>, G<sup>5</sup>, and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

G<sup>1</sup> is  $-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,

R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic or a hydrogenated ring and either directly or over a methylene group;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, benzyl, phenyl,

anellated bi- and tricyclic aromatic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic ring and either directly or over a methylene group;

$R^{10}$  is the same as  $R^9$ , but is selected independently thereof, or is hydroxy;

$G^2$  is  $=CR^8R^9$

which is bound to D by means of a double bond, wherein  $R^8$  and  $R^9$  have the above meaning;

$G^3$  is  $-X-(CH_2)_n-(CR^9R^{10})_m-R^8$  or  $-NR^8R^9$

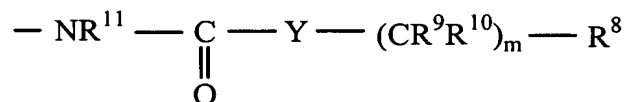
wherein m and the substituents  $R^8$ ,  $R^9$ , and  $R^{10}$  have the above meanings, and

n is 0, 1 or 2

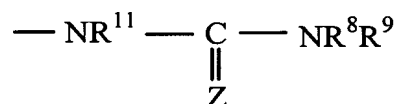
X is  $NR^{11}$ , O or S wherein

$R^{11}$  has the same meaning as  $R^4$ , but is selected independently thereof,

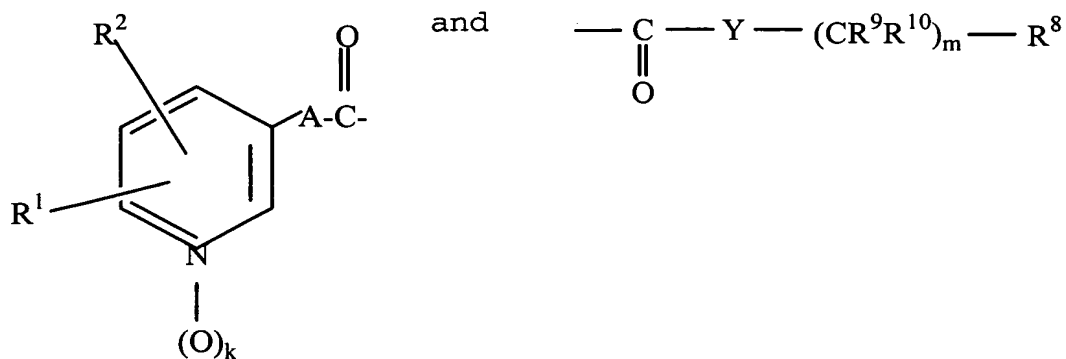
$G^4$  is selected from the group consisting of



and



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein m and the substituents  $R^8$ ,  $R^9$ ,  $R^{10}$  and  $R^{11}$  can have the above meaning, wherein the residues



are not identical, and

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, or represents a bond, and

Z is O or S;

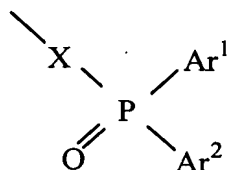
G<sup>5</sup> is  $-\text{NR}^{11}-\text{SO}_2-\text{R}^{12}$

wherein R<sup>11</sup> has the above meaning, and

R<sup>12</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkyl and phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least an aromatic ring, wherein the linkage can occur over an aromatic or hydrogenated ring,

G<sup>6</sup> is



wherein X has the above meaning and

Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, pyridyl and naphthyl; and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> and ring system =CR<sup>8</sup>R<sup>9</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates,

wherein if R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are hydrogen, A is not -CH=CH-, D is not -(CH<sub>2</sub>)<sub>5</sub>- and G is not -N(C<sub>2</sub>H<sub>5</sub>)-CH<sub>2</sub>-phenyl,

wherein if R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are hydrogen, A is not -CH=CH-, D is not -(CH<sub>2</sub>)<sub>5</sub>-N(CH<sub>2</sub>CH<sub>3</sub>)-CH<sub>2</sub>- and G is not phenyl; and

wherein the compound of formula (I) does not represent [S-(R\*,R\*)]-N-(2-hydroxy-1-methyl-2-phenylethyl)-N-methyl-3-pyridine acetamide.

56. (currently amended) The compound according to claim  
55 wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, ethinyl, hydroxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy, benzyloxy, C<sub>1</sub>-C<sub>4</sub>-alkylthio, C<sub>2</sub>-C<sub>5</sub>-alkoxycarbonyl, aminocarbonyl, C<sub>3</sub>-C<sub>9</sub>-dialkylaminocarbonyl, carboxy, phenoxy, phenylthio, and pyridyloxy;

R<sup>2</sup> is selected from the group consisting of hydrogen, fluorine, chlorine, bromine, C<sub>1</sub>-C<sub>4</sub>-alkyl, trifluoromethyl, hydroxy, and C<sub>1</sub>-C<sub>4</sub>-alkoxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>3</sub>-alkyl, allyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, wherein a methylene unit is isosterically replaced by O, S, NH, N(CH<sub>3</sub>) or CO, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, phenyl, hydroxy or fluorine;

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,



a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by methyl, or fluorine<sub>7i</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by methyl or fluorine<sub>7i</sub> and

ethynylene;

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkynylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkynylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy or phenyl<sub>7i</sub> and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, wherein, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene are isosterically replaced by O, S, NH, N(CH<sub>3</sub>), N(COCH<sub>3</sub>), N(SO<sub>2</sub>CH<sub>3</sub>), CO or SO<sub>2</sub>;

G is selected from the group consisting of G<sup>1</sup>, G<sup>2</sup>, G<sup>3</sup>, G<sup>4</sup>, G<sup>5</sup>, and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

$G^1$  is  $-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,

$R^8$  is selected from the group consisting of benzyl, diphenylmethyl, phenyl, benzocyclobutyl, indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, fluorenyl, oxofluorenyl, anthryl, dihydroanthryl, oxodihydroanthryl, dioxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, oxodihydrodibenzocyclooctenyl, and tetrahydrodibenzocyclooctenyl;

$R^9$  is selected from the group consisting of hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkinyl, benzyl, phenyl,

indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, anthryl, dihydroanthryl, oxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, and oxodihydrodibenzocycloheptenyl,

$R^{10}$  is the same as  $R^9$ , but is selected independently thereof, or is hydroxy;

$G^2$  is  $=CR^8R^9$

which is bound to D over a double bond, wherein  $R^8$  and  $R^9$  have the above meaning

$G^3$  is  $-X-(CH_2)_n-(CR^9R^{10})_m-R^8$  or  $-NR^8R^9$

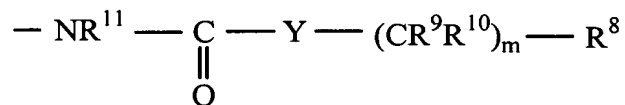
wherein m and the substituents  $R^8$ ,  $R^9$ , and  $R^{10}$  have the above meanings, and

n is 0, 1 or 2,

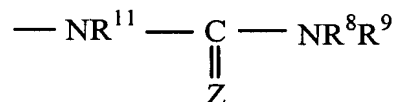
X is NR<sup>11</sup>, O or S wherein

R<sup>11</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>3</sub>-alkyl, allyl, propinyl, benzyl and phenyl,

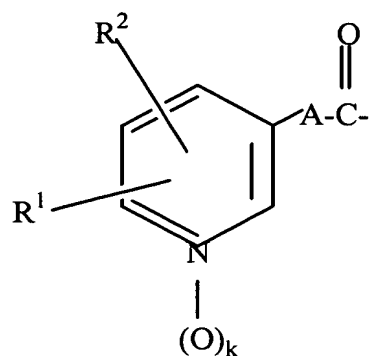
G<sup>4</sup> is selected from the group consisting of



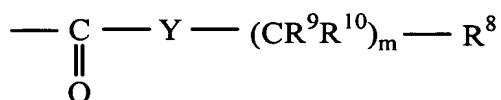
and



wherein structural element D-G does not contain a total of more than 1 amide group wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> can have the above meanings wherein the residues



and



are not identical,

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, and a bond, and

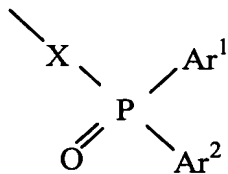
Z is O or S;

$G^5$  is  $-NR^{11}-SO_2-R^{12}$

wherein  $R^{11}$  has the above meaning, and

$R^{12}$  is selected from the group consisting of, phenyl, indenyl, naphthyl and anthryl;

$G^6$  is



wherein X has the above meaning and

$Ar^1$  and  $Ar^2$  are selected independently of each other from the group consisting of phenyl, and naphthyl;

and wherein aromatic ring systems in the substituents  $R^1$ ,  $R^3$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$ ,  $R^{11}$ ,  $R^{12}$ ,  $Ar^1$  and  $Ar^2$  and  $=CR^8R^9$  may be substituted independently from each other by one to three of the same or different groups selected from the group consisting of halogen, cyano,  $C_1$ - $C_6$ -alkyl, trifluoromethyl,  $C_3$ - $C_8$ -cycloalkyl, benzyl, phenyl, hydroxy,  $C_1$ - $C_6$ -hydroxyalkyl,  $C_1$ - $C_6$ -alkoxy,  $C_1$ - $C_6$ -alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto,  $C_1$ - $C_6$ -alkylthio, phenylthio, sulfo, carboxy,  $C_2$ - $C_7$ -carboxyalkyl,  $C_3$ - $C_7$ -carboxyalkenyl,  $C_2$ - $C_7$ -alkoxycarbonyl, benzyloxycarbonyl, nitro, amino,  $C_1$ - $C_6$ -aminoalkyl, mono- $C_1$ - $C_6$ -alkylamino, di- $(C_1$ - $C_6$ -alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy,

wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups

selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino.

57. (currently amended) The compound according to claim 56 wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>4</sub>-alkoxy, phenoxy, methylthio, ethylthio, methoxycarbonyl, aminocarbonyl and carboxy;

R<sup>2</sup> is selected from the group consisting of hydrogen, chlorine, methyl, hydroxy, and methoxy;

R<sup>3</sup> is hydrogen;

k is 0;

A is selected from the group consisting of C<sub>2</sub>-C<sub>6</sub>-alkylene

a substituted C<sub>2</sub>-C<sub>6</sub>-alkylene which is substituted once or twice by hydroxy or fluorine; 1

C<sub>2</sub>-C<sub>6</sub>-alkylene, wherein a methylene unit is isosterically replaced by O, S, or CO, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group; 1

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted by methyl or fluorine; 1

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted by methyl<sub>7i</sub> and

ethinylene;

D is selected from the group consisting of

C<sub>3</sub>-C<sub>10</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>10</sub>-alkylene which is substituted by methyl, hydroxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>10</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>10</sub>-alkenylene which is substituted by methyl, hydroxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>10</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>10</sub>-alkinylene which is substituted by hydroxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>10</sub>-alkylene, C<sub>3</sub>-C<sub>10</sub>-alkenylene or C<sub>3</sub>-C<sub>10</sub>-alkinylene, wherein a methylene unit is isosterically replaced by O, NH, N(CH<sub>3</sub>), or CO, or an ethylene group is isosterically replaced by a group NH-CO or CO-NH, or a propylene group is isosterically replaced by a group NH-CO-NH or NH-CO-O or O-CO-NH;

G is selected from the group consisting of G<sup>1</sup>, G<sup>2</sup>, G<sup>3</sup>, G<sup>4</sup>, G<sup>5</sup>, and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

G<sup>1</sup> is  $-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,

R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl, indanyl, indenyl, oxoindanyl, naphthyl, tetrahydronaphthyl, fluorenyl, oxofluorenyl, anthryl, dihydroanthryl, oxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, and oxodihydrodibenzocyclooctenyl;

R<sup>9</sup> is selected from the group consisting of hydrogen and C<sub>1</sub>-C<sub>3</sub>-alkyl, benzyl, phenyl, indanyl, indenyl, naphthyl and anthryl;

R<sup>10</sup> is the same as R<sup>9</sup>, but is selected independently thereof, or is hydroxy;

G<sup>2</sup> is =CR<sup>8</sup>R<sup>9</sup>

which is bound to D over a double bond, wherein R<sup>8</sup> and R<sup>9</sup> have the above meaning

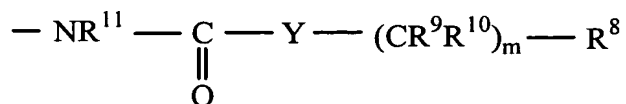
G<sup>3</sup> is -X-(CH<sub>2</sub>)<sub>n</sub>-(CR<sup>9</sup>R<sup>10</sup>)<sub>m</sub>-R<sup>8</sup> or -NR<sup>8</sup>R<sup>9</sup> wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> have the above meanings, and

n is 0 or 1,

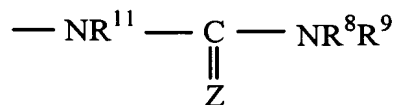
X is NR<sup>11</sup>, O or S wherein

R<sup>11</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>3</sub>-alkyl, benzyl and phenyl,

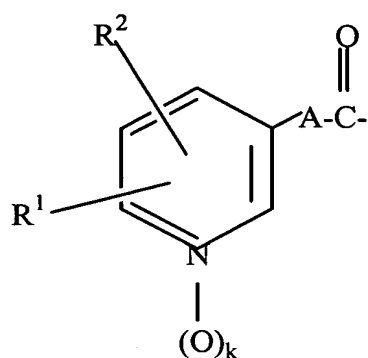
G<sup>4</sup> is selected from the group consisting of



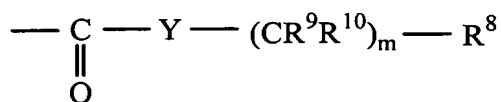
and



wherein structural element D-G does not contain a total of more than 1 amide grouping wherein m and the substituents  $R^8$ ,  $R^9$ ,  $R^{10}$ , and  $R^{11}$  can have the above meanings wherein the residues



and



are not identical,

Y is selected from the grouping consisting of methylene, ethenylene, and a bond, and

Z is O or S;

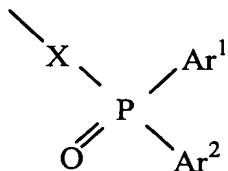
$G^5$  is  $-NR^{11}-SO_2-R^{12}$

wherein  $R^{11}$  has the above meaning, and

$R^{12}$  is selected from the group consisting of, phenyl, naphthyl, and anthryl;

$G^6$  is





wherein X has the above meaning and

Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, and naphthyl;

and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>3</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> and =CR<sup>8</sup>R<sup>9</sup> may be substituted independently from each other by one to three of the same or different groups selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, and methylenedioxy.

58. (currently amended) The compound according to claim  
57 wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, fluorine, methyl, trifluoromethyl and ethylthio;

R<sup>2</sup> is hydrogen;

R<sup>3</sup> is hydrogen;

k is 0;

A is selected from the group consisting of ethylene and butylene,

a substituted ethylene or butylene which is substituted by hydroxy or one or two fluorine atoms;

ethenylene and 1,3-butadienylene;

D is selected from the group consisting of

C<sub>3</sub>-C<sub>8</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>8</sub>-alkylene which is substituted by hydroxy or phenyl;

C<sub>3</sub>-C<sub>8</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>8</sub>-alkenylene which is substituted by phenyl;

C<sub>3</sub>-C<sub>8</sub>-alkynylene; and

C<sub>3</sub>-C<sub>8</sub>-alkylene, C<sub>3</sub>-C<sub>8</sub>-alkenylene or C<sub>3</sub>-C<sub>8</sub>-alkynylene, wherein a methylene unit is isosterically replaced by O, NH or CO;

G is selected from the group consisting of

diphenylmethyl, diphenylhydroxymethyl, diphenylmethylenes, diphenylethylene, triphenylmethyl, naphthylmethylenes, naphthyl, tetrahydronaphthyl, hydroxytetrahydronaphthyl, dihydrodibenzocycloheptenyl, hydroxydihydrodibenzocycloheptenyl,

diphenylmethylamino, diphenylmethyl-methylamino,  
dibenzylamino, benzylphenylamino,  
triphenylmethylamino, biphenylamino, diphenylamino,  
diphenylmethyloxy, diphenylmethylthio,

diphenylacetyl-amino, diphenylacetyl-phenylamino,  
diphenylpropionylamino, diphenylacryloylamino,  
naphthylacetyl-amino, benzoylamino, naphthoylamino,

diphenylmethylaminocarbonylamino,  
dibenzylaminocarbonylamino,  
naphthylmethylaminocarbonylamino,  
biphenylaminocarbonylamino, naphthylaminocarbonylamino,  
benzylphenylaminocarbonylamino,  
diphenylaminocarbonylamino, diphenylaminocarbonyl-  
phenylamino,

tolylsulfonylamino, naphthylsulfonylamino,  
diphenylphosphinoylamino and diphenylphosphinoyloxy,

and wherein aromatic ring systems in G can be substituted independently from each other by one to three groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

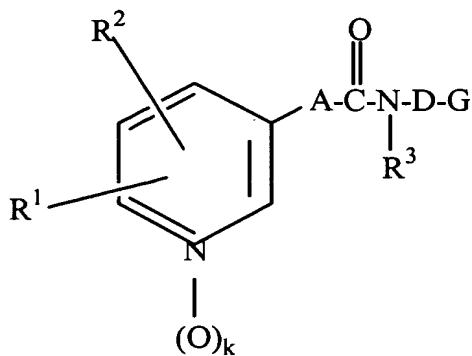
wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups

selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino.

59. (currently amended) The compound of formula (I) of claim 55, wherein the compound is selected from the group consisting of

N-[8,8-bis-(4-fluorophenyl)-octyl]-3-pyridin-3-yl-acryl-~~amidine~~amide hydrochloride,  
N-[6-(3,3-diphenyl-ureido)-hexyl]-3-pyridin-3-yl-acrylamide, N-(8,8-diphenyl-octyl)-3-pyridin-3-yl-acrylamide, N-(8-hydroxy-8,8-diphenyl-octyl)-3-pyridin-3-yl-acrylamide, N-[4-(3,3-diphenyl-ureido)-butyl]-3-pyridin-3-yl-acrylamide, N-(6-hydroxy-6,6-diphenyl-hexyl)-3-pyridin-3-yl-acrylamide, N-(6,6-diphenyl-hex-5-enyl)-3-pyridin-3-yl-acrylamide, N-(5-hydroxy-5,5-diphenyl-pentyl)-3-pyridin-3-yl-acrylamide, N-(7-phenyl-heptyl)-3-pyridin-3-yl-acrylamide, N-(4-diphenylacetyl-amino-butyl)-3-pyridin-3-yl-acrylamide, and N-[4-(benzhydryl-amino)-butyl]-3-pyridin-3-yl-acrylamide.

60. (currently amended) A pharmaceutical composition comprising one or more of the compounds according to formula (I) and pharmaceutically acceptable salts of formula (I)



(I)

wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>8</sub>-cycloalkyloxy, benzyloxy, C<sub>1</sub>-C<sub>7</sub>-alkanoyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, aminocarbonyl, C<sub>2</sub>-C<sub>7</sub>-alkylaminocarbonyl, C<sub>3</sub>-C<sub>13</sub>-dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and NR<sup>4</sup>R<sup>5</sup>, wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;<sub>i</sub>

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;<sub>i</sub>

1,2-cyclopropylene;<sub>i</sub>

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl;<sub>i</sub>

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl;<sub>i</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl;<sub>i</sub> and

ethynylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkinylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>  
and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

$R^{10}$  is the same as  $R^9$ , but is selected independently thereof, or is hydroxy;

G is selected from the group consisting of  $G^1$ ,  $G^2$ ,  $G^3$ ,  $G^4$ ,  $G^5$ , and  $G^6$  wherein G must contain at least one aromatic ring, wherein

$G^1$  is  $-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,

$R^8$  is selected from the group consisting of benzyl, diphenylmethyl, phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic or a hydrogenated ring and either directly or over a methylene group;

$R^9$  is selected from the group consisting of hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkinyl, benzyl, phenyl,

anellated bi- and tricyclic aromatic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic ring and either directly or over a methylene group;

$R^{10}$  is the same as  $R^9$ , but is selected independently thereof, or is hydroxy;

$G^2$  is  $=CR^8R^9$



which is bound to D by means of a double bond, wherein R<sup>8</sup> and R<sup>9</sup> have the above meaning;

G<sup>3</sup> is -X-(CH<sub>2</sub>)<sub>n</sub>-(CR<sup>9</sup>R<sup>10</sup>)<sub>m</sub>-R<sup>8</sup> or -NR<sup>8</sup>R<sup>9</sup>

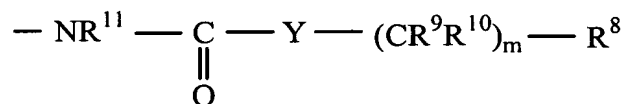
wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> have the above meanings, and

n is 0, 1 or 2

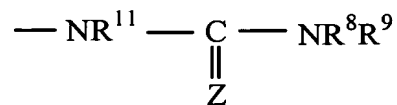
X is NR<sup>11</sup>, O or S wherein

R<sup>11</sup> has the same meanings as R<sup>4</sup>, but is selected independently thereof,

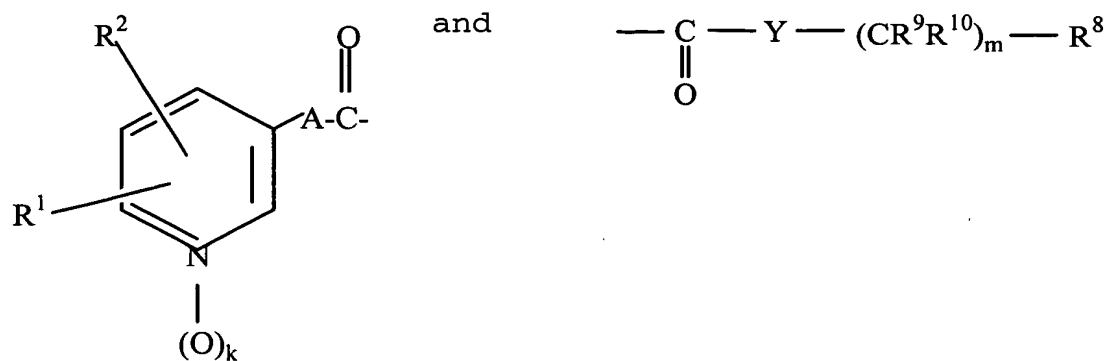
G<sup>4</sup> is selected from the group consisting of



and



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> can have the above meaning, wherein the residues



are not identical, and

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, or represents a bond, and

Z is O or S;

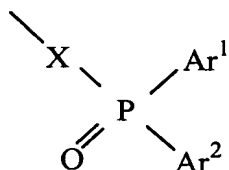
G<sup>5</sup> is  $-\text{NR}^{11}-\text{SO}_2-\text{R}^{12}$

wherein R<sup>11</sup> has the above meaning, and

R<sup>12</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkyl and phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least an aromatic ring, wherein the linkage can occur over an aromatic or hydrogenated ring,

G<sup>6</sup> is



wherein X has the above meaning and

Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, pyridyl and naphthyl; and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> and in ring =CR<sup>8</sup>R<sup>9</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates, wherein if R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are hydrogen, A is not -CH=CH-, D is not -(CH<sub>2</sub>)<sub>5</sub>- and G is not -N(C<sub>2</sub>H<sub>6</sub>)-CH<sub>2</sub>-phenyl, wherein if R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are hydrogen, A is not -CH=CH-, D is not -(CH<sub>2</sub>)<sub>5</sub>-N(CH<sub>2</sub>CH<sub>3</sub>)-CH<sub>2</sub>- and G is not phenyl.

61. (previously presented) The pharmaceutical composition of claim 60 wherein the composition is provided in a form selected from the group consisting of solid, peroral

administrable form as a tablet, capsule, coated tablet, liquid, gastric fluid-resistant preparation, suspension, effervescent tablet, tabs or sachets, sustained action form, parenteral depot medicinal form, implant, inhalant, concentrate, powder, rectal administrable emulsion, genital administrable emulsion, transurethral administrable emulsion, liposomal administrable emulsion, lyophilisate, spray, transdermal, salve, emulsion, balm, plaster and mixtures thereof.

62. (previously presented) The pharmaceutical composition of claim 60 wherein a dosage unit for administration includes 0.001 to 5000 mg active ingredient.

63. (previously presented) The pharmaceutical composition of claim 62 wherein a dosage unit for administration includes 0.001 to 4000 mg active ingredient.

64. (previously presented) The pharmaceutical composition of claim 63 wherein a dosage unit for administration includes 0.001 to 3000 mg active ingredient.

65. (previously presented) The pharmaceutical composition of claim 64 wherein a dosage unit for administration includes 0.001 to 2000 mg active ingredient.

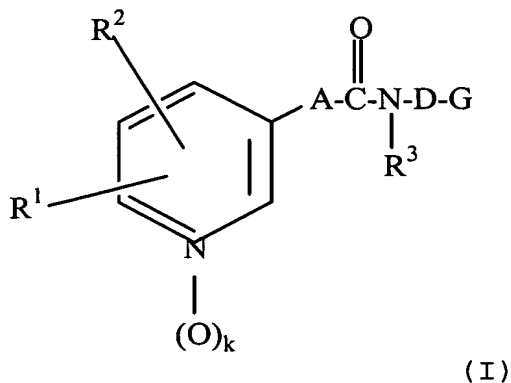
66. (previously presented) The pharmaceutical composition of claim 65 wherein a dosage unit for administration includes 0.001 to 1000 mg active ingredient.

67. (previously presented) The pharmaceutical composition of claim 66 wherein a dosage unit for administration includes 0.01 to 100 mg active ingredient.

68. (previously presented) The pharmaceutical composition of claim 67 wherein a dosage unit for administration includes 1 to 10 mg active ingredient.

69. (previously presented) The pharmaceutical composition of claim 66 wherein a dosage unit for administration includes 1, 2, 5, 10, 20, 25, 30, 50, 100, 200, 300, 400, 500, 600 or 800 mg active ingredient.

70. (currently amended) A method of inhibiting tumor cell growth in a human or animal body comprising administering to the human or animal body in need thereof an amount of a pharmaceutical composition effective for inhibiting tumor cell growth, wherein the method is effective for inhibiting tumors selected from the group consisting of gynecological tumors, ovarian carcinomas, testicle tumors, esophagus carcinomas, stomach cancer, rectal carcinomas, pancreas carcinomas, thyroid cancer, adrenal tumors, leukemia, lymphomas, Hodgkin's disease, CNS tumors, soft-tissue sarcomas, bone sarcomas, benign and malignant mestheliomas, intestine tumors, liver tumors, breast tumors, bronchial and lung carcinomas, melanomas, and benign papillomatosis tumors, wherein the pharmaceutical composition includes compounds of formula (I) or a pharmaceutically acceptable salts of formula (I)



wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>8</sub>-cycloalkyloxy, benzyloxy, C<sub>1</sub>-C<sub>7</sub>-alkanoyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, aminocarbonyl, C<sub>2</sub>-C<sub>7</sub>-alkylaminocarbonyl, C<sub>3</sub>-C<sub>13</sub>-dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and NR<sup>4</sup>R<sup>5</sup>, wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene<sub>7i</sub>

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl<sub>7i</sub>

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>- alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;<sub>i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkynylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkynylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;<sub>i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl, and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

G is selected from the group consisting of G<sup>1</sup>, G<sup>2</sup>, G<sup>3</sup>, G<sup>4</sup>, G<sup>5</sup>, and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

G<sup>1</sup> is  $-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,



$R^8$  is selected from the group consisting of benzyl, diphenylmethyl, phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic or a hydrogenated ring and either directly or over a methylene group;

$R^9$  is selected from the group consisting of hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkinyl, benzyl, phenyl,

anellated bi- and tricyclic aromatic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic ring and either directly or over a methylene group;

$R^{10}$  is the same as  $R^9$ , but is selected independently thereof, or is hydroxy;

$G^2$  is  $=CR^8R^9$

which is bound to D by means of a double bond, wherein  $R^8$  and  $R^9$  have the above meaning;

$G^3$  is  $-X-(CH_2)_n-(CR^9R^{10})_m-R^8$  or  $-NR^8R^9$

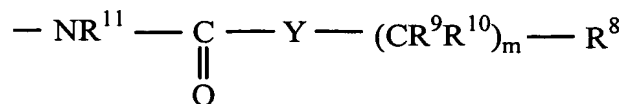
wherein m and the substituents  $R^8$ ,  $R^9$ , and  $R^{10}$  have the above meanings, and

n is 0, 1 or 2

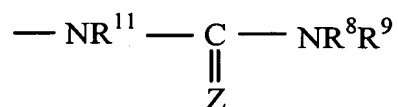
X is  $NR^{11}$ , O or S wherein

$R^{11}$  has the same meaning as  $R^4$ , but is selected independently thereof,

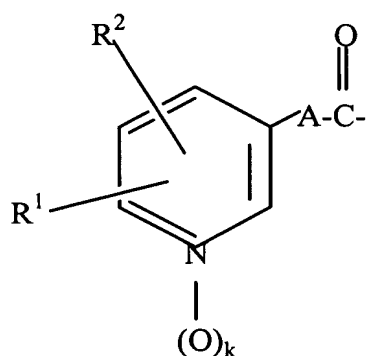
G<sup>4</sup> is selected from the group consisting of



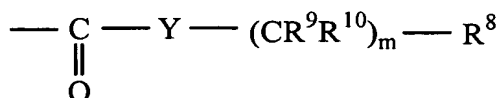
and



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> can have the above meaning, wherein the residues



and



are not identical, and

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, or represents a bond, and

Z is O or S;

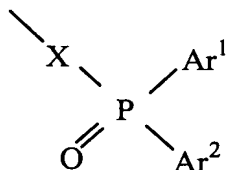
G<sup>5</sup> is  $-NR^{11}-SO_2-R^{12}$

wherein R<sup>11</sup> has the above meaning, and

R<sup>12</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkyl and phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least an aromatic ring, wherein the linkage can occur over an aromatic or hydrogenated ring,

G<sup>6</sup> is



wherein X has the above meaning and

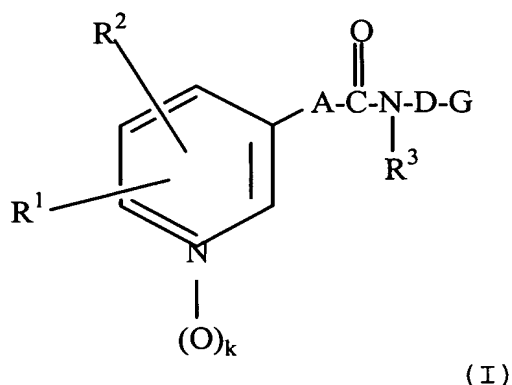
Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, pyridyl and naphthyl;

and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> and =CR<sup>8</sup>R<sup>9</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates.

71. (currently amended) A method of suppressing autoimmune disease in a human or animal body comprising administering to the human or animal body in need thereof an amount of a pharmaceutical composition effective for suppressing autoimmune disease, wherein the pharmaceutical composition includes compounds of formula (I) or pharmaceutically acceptable salts of formula (I)



wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>8</sub>-cycloalkyloxy, benzyloxy, C<sub>1</sub>-C<sub>7</sub>-alkanoyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, aminocarbonyl, C<sub>2</sub>-C<sub>7</sub>-alkylaminocarbonyl, C<sub>3</sub>-C<sub>13</sub>-

dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and  $\text{NR}^4\text{R}^5$ , wherein

$\text{R}^4$  and  $\text{R}^5$  are selected independently of each other from the group consisting of hydrogen,  $\text{C}_1\text{-C}_6\text{-alkyl}$ ,  $\text{C}_3\text{-C}_6\text{-alkenyl}$ ,  $\text{C}_3\text{-C}_6\text{-alkinyl}$ , benzyl and phenyl;

$\text{R}^2$  is selected from the group consisting of hydrogen, halogen, cyano,  $\text{C}_1\text{-C}_6\text{-alkyl}$ , trifluoromethyl, hydroxy,  $\text{C}_1\text{-C}_6\text{-alkoxy}$  and benzyloxy;

$\text{R}^3$  is selected from the group consisting of hydrogen,  $\text{C}_1\text{-C}_6\text{-alkyl}$ ,  $\text{C}_3\text{-C}_6\text{-alkenyl}$ ,  $\text{C}_3\text{-C}_6\text{-alkinyl}$ , hydroxy,  $\text{C}_1\text{-C}_6\text{-alkoxy}$  and benzyloxy;

$k$  is 0 or 1,

$A$  is selected from the group consisting of  $\text{C}_1\text{-C}_6\text{-alkylene}$ ,

a substituted  $\text{C}_1\text{-C}_6\text{-alkylene}$  which may be substituted one to three-fold by  $\text{C}_1\text{-C}_3\text{-alkyl}$ , hydroxy,  $\text{C}_1\text{-C}_3\text{-alkoxy}$ , fluorine, or phenyl;

$\text{C}_2\text{-C}_6\text{-alkylene}$ , in which a methylene unit is isosterically replaced by O, S,  $\text{NR}^6$ , CO, SO or  $\text{SO}_2$ , wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and  $\text{R}^6$  is selected from the group consisting of hydrogen,  $\text{C}_1\text{-C}_6\text{-alkyl}$ ,  $\text{C}_3\text{-C}_6\text{-alkenyl}$ ,  $\text{C}_1\text{-C}_6\text{-acyl}$ , and  $\text{C}_1\text{-C}_6\text{-alkanesulfonyl}$ ;

1,2-cyclopropylene;

$\text{C}_2\text{-C}_6\text{-alkenylene}$ ,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl<sub>7i</sub>

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkynylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;  
i

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;  
i  
and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

G is selected from the group consisting of G<sup>1</sup>, G<sup>2</sup>, G<sup>3</sup>, G<sup>4</sup>, G<sup>5</sup>, and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

G<sup>1</sup> is  $-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,

R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage

can occur over an aromatic or a hydrogenated ring and either directly or over a methylene group;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, benzyl, phenyl,

anellated bi- and tricyclic aromatic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic ring and either directly or over a methylene group;

R<sup>10</sup> is the same as R<sup>9</sup>, but is selected independently thereof, or is hydroxy;

G<sup>2</sup> is =CR<sup>8</sup>R<sup>9</sup>

which is bound to D by means of a double bond, wherein R<sup>8</sup> and R<sup>9</sup> have the above meaning;

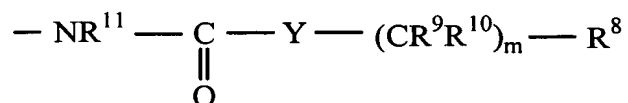
G<sup>3</sup> is -X-(CH<sub>2</sub>)<sub>n</sub>-(CR<sup>9</sup>R<sup>10</sup>)<sub>m</sub>-R<sup>8</sup> or -NR<sup>8</sup>R<sup>9</sup> wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> have the above meanings, and

n is 0, 1 or 2

X is NR<sup>11</sup>, O or S wherein

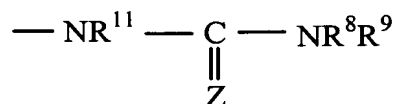
R<sup>11</sup> has the same meaning as R<sup>4</sup>, but is selected independently thereof,

G<sup>4</sup> is selected from the group consisting of

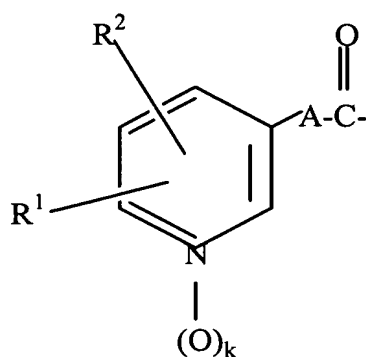




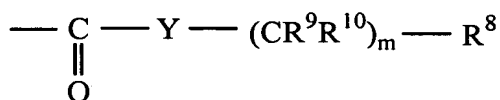
and



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein m and the substituents  $\text{R}^8$ ,  $\text{R}^9$ ,  $\text{R}^{10}$ , and  $\text{R}^{11}$  can have the above meaning, wherein the residues



and



are not identical, and

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, or represents a bond, and

Z is O or S;

$\text{G}^5$  is  $\text{—NR}^{11}\text{—SO}_2\text{—R}^{12}$

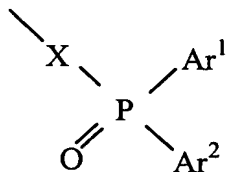
wherein  $\text{R}^{11}$  has the above meaning, and

$\text{R}^{12}$  is selected from the group consisting of  $\text{C}_1\text{—C}_6\text{—alkyl}$  and phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring

atoms, and at least an aromatic ring, wherein the linkage can occur over an aromatic or hydrogenated ring,

G<sup>6</sup> is



wherein X has the above meaning and

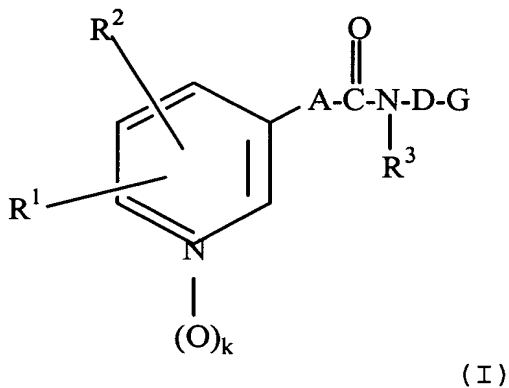
Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, pyridyl and naphthyl;

and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> and =CR<sup>8</sup>R<sup>9</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

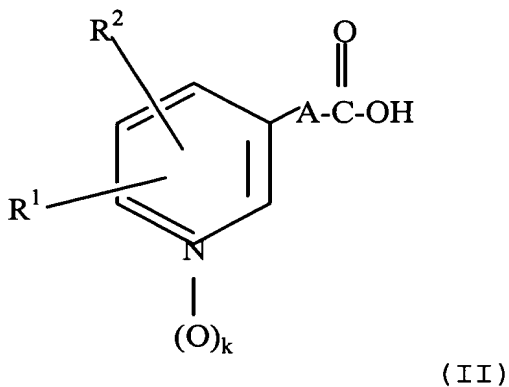
wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates.

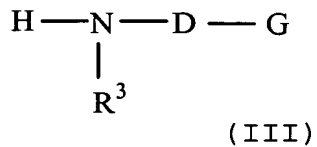
72. (currently amended) A method for the production of a compound of formula (I)



the method comprising reacting a compound of formula (II)



with compounds of formula (III)



in an inert solvent or polar aprotic solvent or solvent mixture or in the presence of auxiliary base in the form of a carbonate or organic amine at a reaction temperature between -40°C and 180°C,

wherein

R<sup>1</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>8</sub>-cycloalkyloxy, benzyloxy, C<sub>1</sub>-C<sub>7</sub>-alkanoyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, aminocarbonyl, C<sub>2</sub>-C<sub>7</sub>-alkylaminocarbonyl, C<sub>3</sub>-C<sub>13</sub>-dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and NR<sup>4</sup>R<sup>5</sup>, wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl;

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl;

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl; and

ethynylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkinylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl; and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

G is selected from the group consisting of G<sup>1</sup>, G<sup>2</sup>, G<sup>3</sup>, G<sup>4</sup>, G<sup>5</sup>, and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

G<sup>1</sup> is  $-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,

R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic or a hydrogenated ring and either directly or over a methylene group;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, benzyl, phenyl,

anellated bi- and tricyclic aromatic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic ring and either directly or over a methylene group;

R<sup>10</sup> is the same as R<sup>9</sup>, but is selected independently thereof, or is hydroxy;

G<sup>2</sup> is =CR<sup>8</sup>R<sup>9</sup>

which is bound to D by means of a double bond, wherein R<sup>8</sup> and R<sup>9</sup> have the above meaning;

G<sup>3</sup> is -X-(CH<sub>2</sub>)<sub>n</sub>-(CR<sup>9</sup>R<sup>10</sup>)<sub>m</sub>-R<sup>8</sup> or -NR<sup>8</sup>R<sup>9</sup>

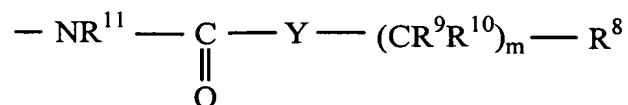
wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> have the above meanings, and

n is 0, 1 or 2

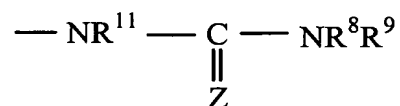
X is NR<sup>11</sup>, O or S wherein

R<sup>11</sup> has the same meaning as R<sup>4</sup>, but is selected independently thereof,

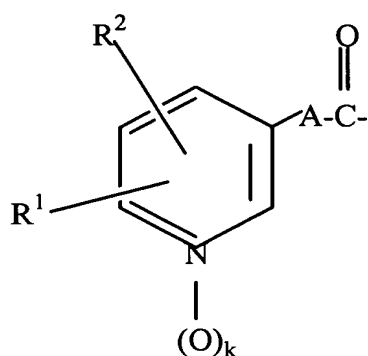
G<sup>4</sup> is selected from the group consisting of



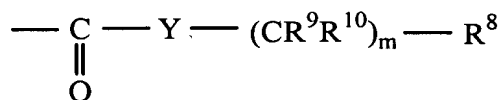
and



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> can have the above meaning, wherein the residues



and



are not identical, and

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, or represents a bond, and

Z is O or S;



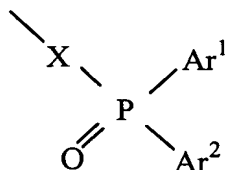
G<sup>5</sup> is -NR<sup>11</sup>-SO<sub>2</sub>-R<sup>12</sup>

wherein R<sup>11</sup> has the above meaning, and

R<sup>12</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkyl and phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least an aromatic ring, wherein the linkage can occur over an aromatic or hydrogenated ring,

G<sup>6</sup> is



wherein X has the above meaning and

Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, pyridyl and naphthyl;

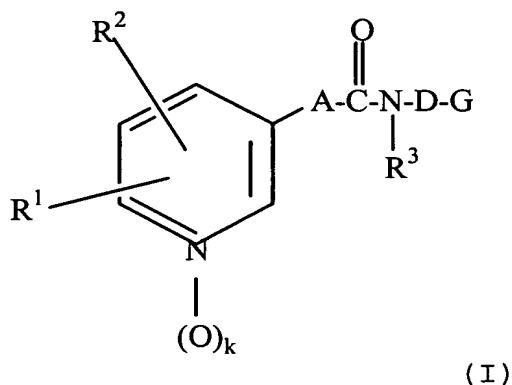
and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> and =CR<sup>8</sup>R<sup>9</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino

and, for two adjacent residues on the aromatic ring,  
methylenedioxy and

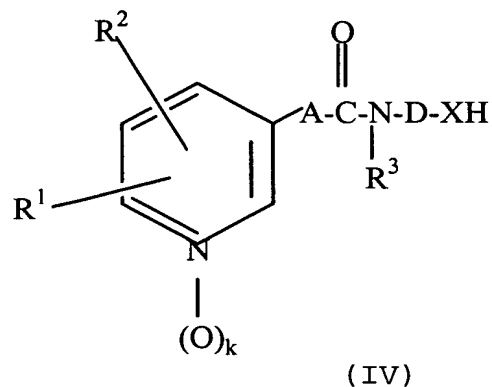
wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates,  
wherein if R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are hydrogen, A is not -CH=CH-, D is not -(CH<sub>2</sub>)<sub>5</sub>- and G is not -N(C<sub>2</sub>H<sub>5</sub>)-CH<sub>2</sub>-phenyl,  
wherein if R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are hydrogen, A is not -CH=CH-, D is not -(CH<sub>2</sub>)<sub>5</sub>-N(CH<sub>2</sub>CH<sub>3</sub>)-CH<sub>2</sub>- and G is not phenyl.

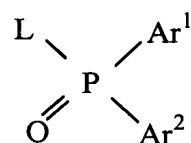
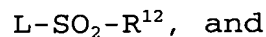
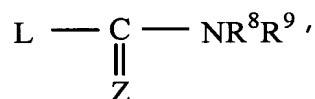
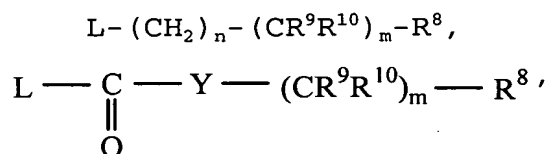
73. (currently amended) A method for the production of a compound of formula (I)



the method comprising reacting a compound of formula (IV)



with alkylation or arylation agents or carboxylic acid, carbamic acid, thiocarbamic acid, sulfonic acid or phosphinic acid derivatives of the following compounds



wherein L represents a leaving group selected from the group consisting of reactive ~~hologenated~~ halogenated derivatives of an alcohol, and sulfonic acid esters, X = NR<sup>11</sup> and R<sup>1</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkynyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>3</sub>-C<sub>8</sub>-cycloalkyloxy, benzyloxy, C<sub>1</sub>-C<sub>7</sub>-alkanoyloxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>2</sub>-C<sub>7</sub>-

alkoxycarbonyl, aminocarbonyl, C<sub>2</sub>-C<sub>7</sub>-alkylaminocarbonyl, C<sub>3</sub>-C<sub>13</sub>-dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and NR<sup>4</sup>R<sup>5</sup>, wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl<sub>7i</sub>

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkynylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;  
i

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;  
i  
and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

m is 0 or 1;

R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic or a hydrogenated ring and either directly or over a methylene group;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkynyl, benzyl, phenyl,

anellated bi- and tricyclic aromatic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein

the linkage can occur over an aromatic ring and either directly or over a methylene group;

R<sup>10</sup> is the same as R<sup>9</sup>, but is selected independently thereof, or is hydroxy;

G is selected from the group consisting of G<sup>3</sup>, G<sup>4</sup>, G<sup>5</sup> and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

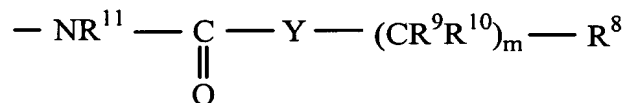
G<sup>3</sup> is -X<sup>+</sup>-(CH<sub>2</sub>)<sub>n</sub>-(CR<sup>9</sup>R<sup>10</sup>)<sub>m</sub>-R<sup>8</sup>  
wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> have the above meanings, and

n is 0, 1 or 2

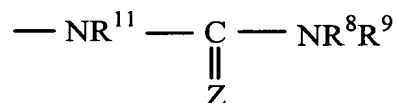
X is NR<sup>11</sup>, wherein

R<sup>11</sup> has the same meaning as R<sup>4</sup>, but is selected independently thereof,

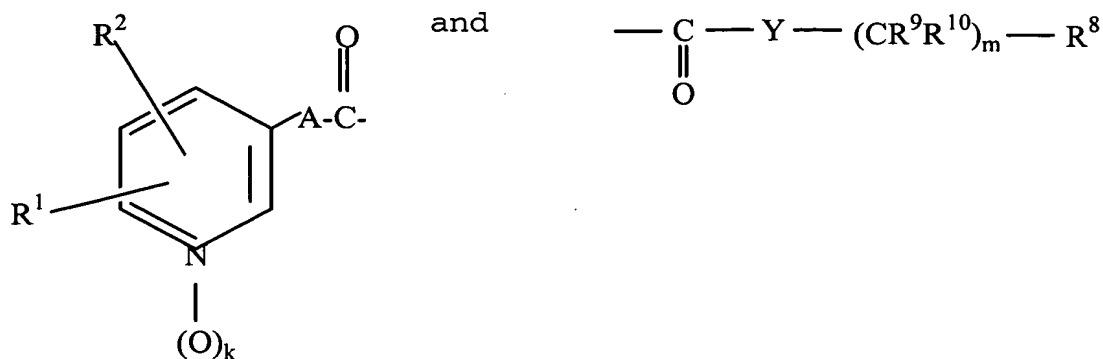
G<sup>4</sup> is selected from the group consisting of



and



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> can have the above meaning, wherein the residues



are not identical, and

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, or represents a bond, and

Z is O or S;

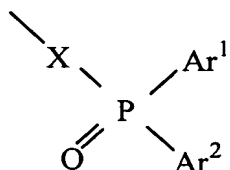
G<sup>5</sup> is  $-\text{NR}^{11}-\text{SO}_2-\text{R}^{12}$

wherein R<sup>11</sup> has the above meaning, and

R<sup>12</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkyl and phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least an aromatic ring, wherein the linkage can occur over an aromatic or hydrogenated ring,

G<sup>6</sup> is



wherein X<sup>+</sup> has the above meaning and

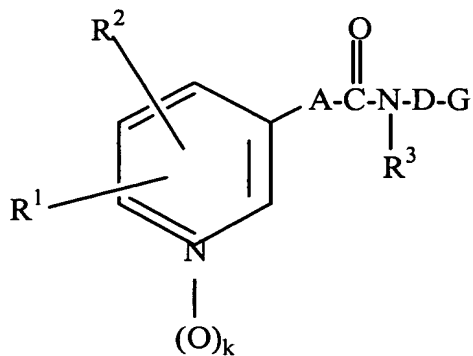


Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, pyridyl and naphthyl; and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> and =CR<sup>8</sup>R<sup>9</sup> and -NR<sup>8</sup>R<sup>9</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

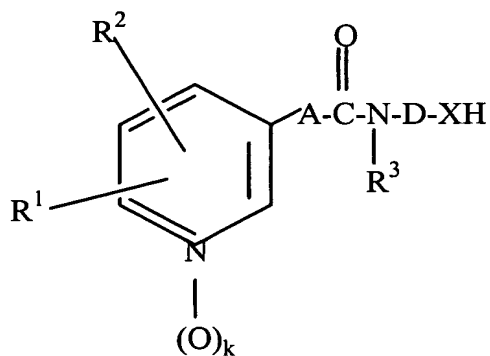
the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates.

74. (currently amended) A method for the production of a compound of formula (I)



(I)

the method comprising reacting a compound of formula (IV)



(IV)

in an inert solvent with alkylation or arylation agents of  $L-(CH_2)_n-(CR^9R^{10})_m-R^8$  at a temperature of between  $0^\circ\text{C}$  and  $180^\circ\text{C}$ ,

wherein L is a leaving group,  $X=NR^{11}$ , and

$R^1$  is selected from the group consisting of hydrogen, halogen, cyano,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkinyl, trifluoromethyl,  $C_3$ - $C_8$ -cycloalkyl,  $C_1$ - $C_6$ -hydroxyalkyl, hydroxy,  $C_1$ - $C_6$ -alkoxy,  $C_3$ - $C_8$ -cycloalkyloxy, benzyloxy,  $C_1$ - $C_7$ -alkanoyloxy,  $C_1$ - $C_6$ -alkylthio,  $C_2$ - $C_7$ -alkoxycarbonyl, aminocarbonyl,  $C_2$ - $C_7$ -alkylaminocarbonyl,  $C_3$ - $C_{13}$ -dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and  $NR^4R^5$ , wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl;

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>- alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkinylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;  
and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

G is  $-(CH_2)_n-(CR^9R^{10})_m-R^8$   $-X-(CH_2)_n-(CR^9R^{10})_m-R^8$

and

m is 0 or 1,

n is 0, 1 or 2,

R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic or a hydrogenated ring and either directly or over a methylene group;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, benzyl, phenyl,

anellated bi- and tricyclic aromatic ring systems with 8 to 18 ring atoms, and at least one aromatic ring, wherein the linkage can occur over an aromatic ring and either directly or over a methylene group;

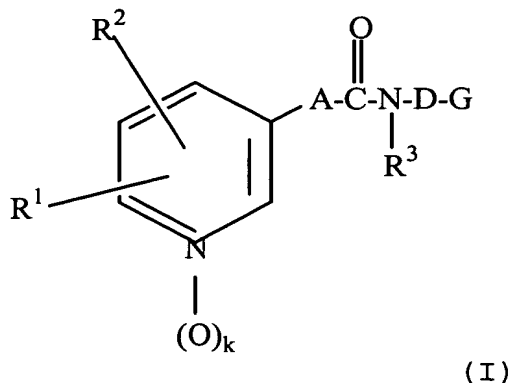
R<sup>10</sup> is the same as R<sup>9</sup>, but is selected independently thereof, or is hydroxy;

R<sup>11</sup> has the same meaning as R<sup>4</sup>, but is selected independently thereof;

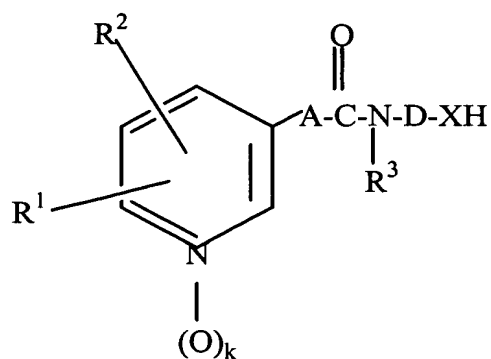
wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates.

75. (currently amended) A method for the production of a compound of formula (I)

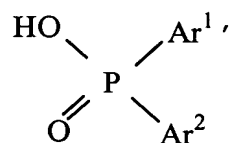
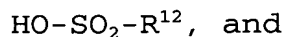
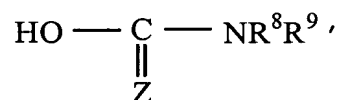
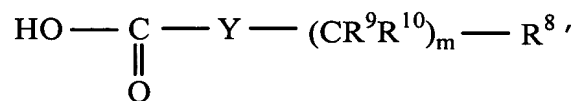


the method comprising reacting a compound of formula (IV)



(IV)

with alkylation or arylation agents or carboxylic acid, carbamic acid, thiocarbamic acid, sulfonic acid or phosphinic acid derivatives of the following compounds



wherein X is  $NR^{11}$  and

$R^1$  is selected from the group consisting of hydrogen, halogen, cyano,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkinyl, trifluoromethyl,  $C_3$ - $C_8$ -cycloalkyl,  $C_1$ - $C_6$ -hydroxyalkyl, hydroxy,  $C_1$ - $C_6$ -alkoxy,  $C_3$ - $C_8$ -cycloalkyloxy, benzyloxy,  $C_1$ - $C_7$ -alkanoyloxy,  $C_1$ - $C_6$ -alkylthio,  $C_2$ - $C_7$ -alkoxycarbonyl, aminocarbonyl,  $C_2$ - $C_7$ -alkylaminocarbonyl,  $C_3$ - $C_{13}$ -dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and  $NR^4R^5$ , wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl;



C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>- alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkinylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;  
and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

m is 0 or ~~4~~ 1,

R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl, benzocyclobutyl, indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, fluorenyl, oxofluorenyl, anthryl, dihydroanthryl, oxodihydroanthryl, dioxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, oxodihydrodibenzocyclooctenyl, and tetrahydrodibenzocyclooctenyl;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, benzyl, phenyl,

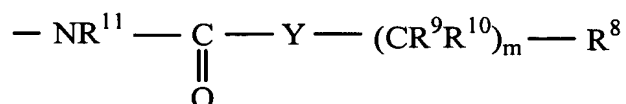
indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, anthryl, dihydroanthryl, oxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, and oxodihydrodibenzocycloheptenyl,

R<sup>10</sup> is the same as R<sup>9</sup>, but is selected independently thereof, or is hydroxy;

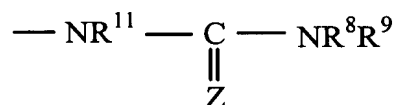
R<sup>11</sup> has the same meaning as R<sup>4</sup>, but is selected independently thereof;

G is selected from the group consisting of G<sup>4</sup>, G<sup>5</sup>, and G<sup>6</sup> wherein G must contain at least one aromatic ring, wherein

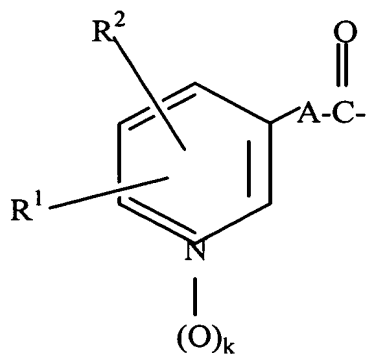
G<sup>4</sup> is selected from the group consisting of



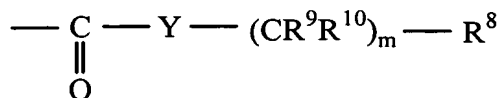
and



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein m and the substituents R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, and R<sup>11</sup> can have the above meaning, wherein the residues



and



are not identical, and

Y is selected from the grouping consisting of methylene, ethylene, ethenylene, or represents a bond, and

Z is O or S;

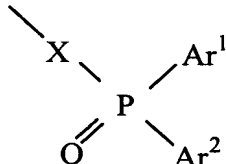
G<sup>5</sup> is -NR<sup>11</sup>-SO<sub>2</sub>-R<sup>12</sup>

wherein R<sup>11</sup> has the above meaning, and

R<sup>12</sup> is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkyl and phenyl,

anellated bi- and tricyclic aromatic or partially hydrogenated carbocyclic ring systems with 8 to 18 ring atoms, and at least an aromatic ring, wherein the linkage can occur over an aromatic ring,

G<sup>6</sup> is



wherein X has the above meaning and

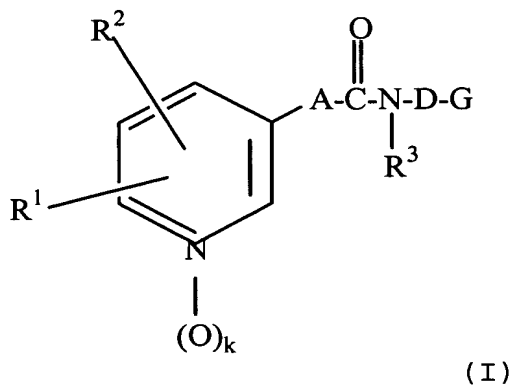
Ar<sup>1</sup> and Ar<sup>2</sup> are selected independently of each other from the group consisting of phenyl, pyridyl and naphthyl; and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup>, R<sup>12</sup>, Ar<sup>1</sup> and Ar<sup>2</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy,

mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

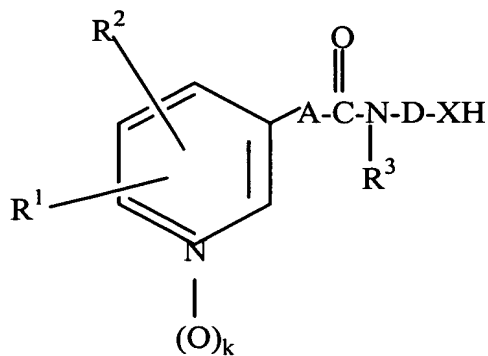
wherein alkyl residues in the ~~Group~~ group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates.

76. (currently amended) A method for the production of a compound of formula (I)



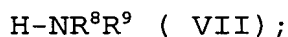
the method comprising reacting a compound of formula (IV)



(IV)

with a carbonyl group transmitter to form an intermediate, wherein the carbonyl group transmitter is bis-trichloromethyl carbonate or carbonyldiimidazole,

which intermediate is then reacted with a compound of formula (VII),



wherein

$R^1$  is selected from the group consisting of hydrogen, halogen, cyano,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkinyl, trifluoromethyl,  $C_3$ - $C_8$ -cycloalkyl,  $C_1$ - $C_6$ -hydroxyalkyl, hydroxy,  $C_1$ - $C_6$ -alkoxy,  $C_3$ - $C_8$ -cycloalkyloxy, benzyloxy,  $C_1$ - $C_7$ -alkanoyloxy,  $C_1$ - $C_6$ -alkylthio,  $C_2$ - $C_7$ -alkoxycarbonyl, aminocarbonyl,  $C_2$ - $C_7$ -alkylaminocarbonyl,  $C_3$ - $C_{13}$ -dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and  $NR^4R^5$ , wherein

$R^4$  and  $R^5$  are selected independently of each other from the group consisting of hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_3$ - $C_6$ -alkinyl, benzyl and phenyl;

$R^2$  is selected from the group consisting of hydrogen, halogen, cyano,  $C_1$ - $C_6$ -alkyl, trifluoromethyl, hydroxy,  $C_1$ - $C_6$ -alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl;

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl;

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7i</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>- alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkinylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub>

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7i</sub> and



C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkynylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

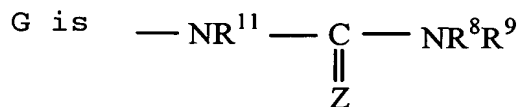
R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl, benzocyclobutyl, indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, fluorenyl, oxofluorenyl, anthryl, dihydroanthryl, oxodihydroanthryl, dioxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, oxodihydrodibenzocyclooctenyl, and tetrahydrodibenzocyclooctenyl;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkynyl, benzyl, phenyl,

indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, anthryl, dihydroanthryl, oxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, and oxodihydrodibenzocycloheptenyl,

R<sup>11</sup> has the same meaning as R<sup>4</sup>, but is selected independently thereof;

X is NR<sup>11</sup>;



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein R<sup>8</sup>, R<sup>9</sup>, and R<sup>11</sup> can have the above meaning,

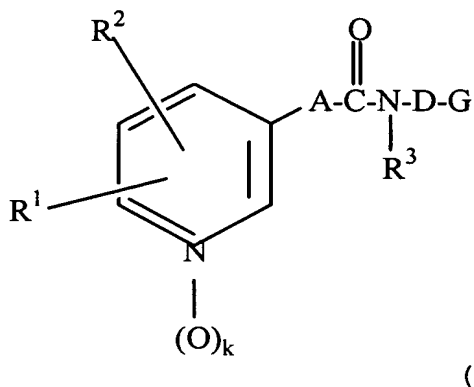
Z is O or S;

and wherein aromatic ring systems in the substituents R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>8</sup>, R<sup>9</sup>, and R<sup>11</sup> may be substituted independently from each other by one to three of the same or different groups independently selected from the group consisting of halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, benzyl, phenyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-hydroxyalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy entirely or partially substituted by fluorine, benzyloxy, phenoxy, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkylthio, phenylthio, sulfo, carboxy, C<sub>2</sub>-C<sub>7</sub>-carboxyalkyl, C<sub>3</sub>-C<sub>7</sub>-carboxyalkenyl, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, nitro, amino, C<sub>1</sub>-C<sub>6</sub>-aminoalkyl, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino, di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino and, for two adjacent residues on the aromatic ring, methylenedioxy and

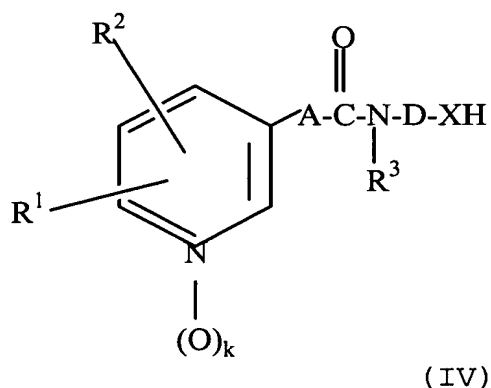
wherein alkyl residues in the group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy, C<sub>2</sub>-C<sub>7</sub>-alkoxycarbonyl, benzyloxycarbonyl, amino, mono-C<sub>1</sub>-C<sub>6</sub>-alkylamino and di-(C<sub>1</sub>-C<sub>6</sub>-alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates.

77. (currently amended) A method for the production of a compound of formula (I)



the method comprising reacting a compound of formula (IV)



with an isocyanate or isothiocyanate having formula  $Z=C=N-R^8$  at a temperature of  $-20^{\circ}\text{C}$  to  $150^{\circ}\text{C}$ , wherein

$R^1$  is selected from the group consisting of hydrogen, halogen, cyano,  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkynyl, trifluoromethyl,  $C_3$ - $C_8$ -cycloalkyl,  $C_1$ - $C_6$ -hydroxyalkyl, hydroxy,  $C_1$ - $C_6$ -alkoxy,  $C_3$ - $C_8$ -cycloalkyloxy, benzyloxy,  $C_1$ - $C_7$ -alkanoyloxy,  $C_1$ - $C_6$ -alkylthio,  $C_2$ - $C_7$ -alkoxycarbonyl, aminocarbonyl,  $C_2$ - $C_7$ -alkylaminocarbonyl,  $C_3$ - $C_{13}$ -dialkylaminocarbonyl, carboxy, phenyl, phenoxy, phenylthio, pyridyloxy, pyridylthio, and  $NR^4R^5$ , wherein

R<sup>4</sup> and R<sup>5</sup> are selected independently of each other from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, benzyl and phenyl;

R<sup>2</sup> is selected from the group consisting of hydrogen, halogen, cyano, C<sub>1</sub>-C<sub>6</sub>-alkyl, trifluoromethyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

R<sup>3</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-alkinyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy and benzyloxy;

k is 0 or 1,

A is selected from the group consisting of C<sub>1</sub>-C<sub>6</sub>-alkylene,

a substituted C<sub>1</sub>-C<sub>6</sub>-alkylene which may be substituted one to three-fold by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, or phenyl;

C<sub>2</sub>-C<sub>6</sub>-alkylene, in which a methylene unit is isosterically replaced by O, S, NR<sup>6</sup>, CO, SO or SO<sub>2</sub>, wherein, with the exception of CO, the isosteric substitution is not adjacent to the amide group and R<sup>6</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>1</sub>-C<sub>6</sub>-acyl, and C<sub>1</sub>-C<sub>6</sub>-alkanesulfonyl;

1,2-cyclopropylene;

C<sub>2</sub>-C<sub>6</sub>-alkenylene,

a substituted C<sub>2</sub>-C<sub>6</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>3</sub>-alkoxy, fluorine, cyano or phenyl;

C<sub>4</sub>-C<sub>6</sub>-alkadienylene,

a substituted C<sub>4</sub>-C<sub>6</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7,1</sub>

1,3,5-hexatrienylene,

a substituted 1,3,5-hexatrienylene, which is substituted by C<sub>1</sub>-C<sub>3</sub>-alkyl, fluorine, cyano or phenyl<sub>7,1</sub> and

ethinylene,

D is selected from the group consisting of

C<sub>3</sub>-C<sub>12</sub>-alkylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7,1</sub>

C<sub>3</sub>-C<sub>12</sub>-alkenylene,

a substituted C<sub>3</sub>-C<sub>12</sub>-alkenylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7,1</sub>

C<sub>5</sub>-C<sub>12</sub>-alkadienylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkadienylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7,1</sub>

C<sub>3</sub>-C<sub>12</sub>-alkinylene

a substituted C<sub>3</sub>-C<sub>12</sub>-alkinylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl<sub>7,1</sub>

C<sub>5</sub>-C<sub>12</sub>-alkeninylene,

a substituted C<sub>5</sub>-C<sub>12</sub>-alkeninylene which is substituted once or twice by C<sub>1</sub>-C<sub>6</sub>-alkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>-alkoxy or phenyl;  
and

C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, wherein, with the exception of the (G)-terminal methylene group in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene, one to three methylene units in the C<sub>3</sub>-C<sub>12</sub>-alkylene, C<sub>3</sub>-C<sub>12</sub>-alkenylene or C<sub>3</sub>-C<sub>12</sub>-alkinylene are isosterically replaced by O, S, NR<sup>7</sup>, CO, SO or SO<sub>2</sub>, wherein R<sup>7</sup> has the same meaning as R<sup>6</sup>, but is selected independently thereof;

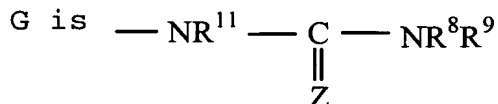
R<sup>8</sup> is selected from the group consisting of benzyl, diphenylmethyl, phenyl, benzocyclobutyl, indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, fluorenyl, oxofluorenyl, anthryl, dihydroanthryl, oxodihydroanthryl, dioxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, oxodihydrodibenzocyclooctenyl, and tetrahydrodibenzocyclooctenyl;

R<sup>9</sup> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>2</sub>-C<sub>6</sub>-alkinyl, benzyl, phenyl,

indanyl, indenyl, oxoindanyl, naphthyl, dihydronaphthyl, tetrahydronaphthyl, biphenylenyl, anthryl, dihydroanthryl, oxodihydroanthryl, phenanthryl, dibenzocycloheptenyl, dihydrodibenzocycloheptenyl, and oxodihydrodibenzocycloheptenyl,

$R^{11}$  has the same meaning as  $R^4$ , but is selected independently thereof;

X is  $NR^{11}$ ;



wherein structural element D-G cannot contain a total of more than 1 amide grouping, wherein  $R^8$ ,  $R^9$ , and  $R^{11}$  can have the above meaning,

Z is O or S;

wherein alkyl residues in the group G can be substituted by one or two of the same or different groups selected from the group consisting of hydroxy, carboxy,  $C_2$ - $C_7$ -alkoxycarbonyl, benzyloxycarbonyl, amino, mono- $C_1$ - $C_6$ -alkylamino and di- $(C_1$ - $C_6$ -alkyl)amino;

the cis- and trans-isomers, E- and Z-isomers including the corresponding enantiomers, diastereomers and other isomers, the tautomers and their acid addition salts including their hydrates and solvates.